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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,203	09/23/2003	Michael P. Wallace	03-247 (US01)	2638

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EXAMINER	
ROANE, AARON F	

ART UNIT	PAPER NUMBER
3739	

MAIL DATE	DELIVERY MODE
01/09/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/669,203

Applicant(s)

WALLACE, MICHAEL P.

Examiner

Aaron Roane

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-14, 16, 18, 19, 25, 26 and 37-42 is/are pending in the application.
- 4a) Of the above claim(s) 4, 9, 14, 16 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-8, 10-13, 18, 19, 25 and 37-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 May 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/25/2007 & 10/29/2007.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6-8, 10-13, 18, 19, 25 and 37-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ken et al. (USPN 5,853,418) in view Günther et al. (USPN 6,238,421) and in further view of Wallace et al. (USPN 6,280,457) in still further view of Engelson (USPN 6,024,754).

Regarding claims 1, 6, 10, 11, 18, 19, 25, 37 and 39-42 Ken et al. disclose a vaso-occlusive device for treating a site within a patient's vasculature, the device comprising a helically wound coil (coiled formed by 102 and its analogous counterparts in the other embodiments) forming a lumen and formed of platinum (see col. 4, lines 47-60), a filament/heating member (first material) (108, 208 and 214 and their analogous counterparts in the other embodiments) disposed in the lumen, the heating member at least partially comprising a first highly resistive, ferrous material (contains iron), the first material that is embedded within the device and which may be heated by application of a

source of energy external to a patient's body after the device is implanted at a treatment site in the patient's body, see col. 1-9, particularly col. 4, line 6 through col. 5, line 10 and figures 1A-11D. Ken et al. fail to disclose the device may be heated by an energy emitting element external to the patient. Ken et al. also fail to disclose a bioactive agent that is activated or released when the device is heated. Günther et al. disclose an induction heating device and method for metallic implants in the living beings and teach using "a conducting coil and an RF generator are used in the present invention to heat a metallic implant inductively from outside the body" in order to treat aneurysms, see col. 2, line 44 through col. 5, lines 37. Wallace et al. also disclose a vaso-occlusive coil device and teach that "the polymeric fiber covering the device are used as a carrier for bioactive molecules. Non-limiting examples of bioactive materials which increase cell attachment and/or thrombogenicity include both natural and synthetic compounds, e.g., collagen, fibrinogen, vitronectin, other plasma proteins, growth factors (e.g., vascular endothelial growth factor, "vEGF"), synthetic peptides of these and other proteins having attached RGD (arginine-glycine-aspartic acid) residues, generally at one or both termini. In addition, polynucleotide sequences encoding peptides (e.g., genes) involved in wound healing or promoting cellular attachment may also be used, see col. 12, lines 3-14. Engelson discloses an aneurysm closure coil device and method and teaches providing the coil device (240) with a "coating of polymeric composition" that upon heating melts and comes off the coil, and once heat is removed the polymeric material "can be coalesced, reformed, or solidified in the vasculature" in order to enhance the treatment of aneurysm, see col. 2, line 66 through col. 3, line 32 and col. 4-10, particularly col. 9, line

25 through col. 10, line 5 and figures 1- 12C, particularly figures 12A-12C. Once the polymeric coating is heated and melts away from or off of the coil (Engelson) the bioactive agent is released (Wallace et al.). Therefore at the time of the invention it would have been obvious to one of ordinary skill in the art to modify the invention of Ken et al., as taught by Günther et al. et al., to provide heating energy from outside/external source as an alternate means of heating the implantable metallic coil, and as further taught by Wallace et al., to provide the coil with a polymeric coating having a bioactive agent in order to improve the vaso-occlusion treatment, and still as further taught by Engelson, to provide the coil with a polymeric coating that is released from the coil upon heating in order to further enhance the treatment of aneurysms.

Regarding claims 2, 3, 12 and 13, Ken et al. in view Günther et al. and in further view of Wallace et al. and still in further view of Engelson disclose the claimed invention, see the polymeric material coating of Engelson (entire reference).

Regarding claims 7 and 38, Ken et al. in view Günther et al. and in further view of Wallace et al. and still in further view of Engelson disclose the claimed invention.

Regarding claim 8, Ken et al. in view Günther et al. and in further view of Wallace et al. and still in further view of Engelson disclose the claimed invention. It can be clearly seen that (108 and all analogous counterparts in other embodiments) of Ken et al. is embedded in the element, see figures 1A-10.

Regarding claim 30, Ken et al. in view Günther et al. and in further view of Wallace et al. and still in further view of Engelson disclose the claimed invention.

Regarding claim 34, Ken et al. disclose the claimed invention, see col. 1-9, particularly col. 4, line 6 through col. 5, line 10 and figures 1A-11D.

Response to Arguments

Applicant's arguments with respect to claims 1-3, 6-8, 10-13, 18, 19, 25 and 37-42 have been considered but are moot in view of the new ground(s) of rejection. A new rejection based on the combination of Ken et al. in view Günther et al. and in further view of Wallace et al. and still in further view of Engelson, where Engelson contains and discloses significantly claimed subject matter.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Roane whose telephone number is (571) 272-4771. The examiner can normally be reached on Monday-Thursday 7AM-6PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aaron Roane



January 3, 2008

/Roy D. Gibson/

Primary Examiner

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